

CLAIM AMENDMENTS

Claim Amendment Summary

Claims pending

- Before this Amendment: Claims 1-33.
- After this Amendment: Claims 1-33.

Previously Canceled Claims: None.

Claims Canceled Herein: None.

Claims Amended Herein: Claims 1, 5, 13, 20, and 28.

New claims: None.

Claims:

1. (Currently Amended) A computer-readable medium including at least one tangible component, and having stored thereon a data structure for receiving data formatted in accordance with a first version and for presenting the received data in an arrangement ~~which can be validated~~ defined by the data structure for validation by a device using a current version, the data structure, comprising:

at least one optional data member to render the received data functional within the current version of the data structure when optional data is absent from the received data; and

at least one construct to render the received data functional within the current version of the data structure when the received data includes wildcard data that is not specified by the current version of the data structure; and

wherein, the at least one optional data member and the at least one construct of the data structure are for receiving data formatted in accordance with the first version and for presenting the received data in an arrangement defined by the data structure for validation by the device using the current version.

2. (ORIGINAL) A computer-readable medium according to Claim 1, wherein the data structure is both backward-compatible and forward-compatible with other versions of the data structure.

3. (ORIGINAL) A computer-readable medium according to Claim 1, wherein the data structure is described by an XML schema.

4. (ORIGINAL) A computer-readable medium according to Claim 1, wherein the at least one construct includes a delimiter followed by a wildcard data member.

5. (Currently Amended) A computer-readable medium including at least one tangible component, and having stored thereon a data structure for receiving data formatted in accordance with a first version of the data structure and for presenting the received data in an arrangement ~~which can be validated~~ defined by the data structure for validation by a device using a current version, the data structure, comprising:

at least one optional data member to render the received data functional within the current version of the data structure when optional data is absent from the received data;

at least one construct to render the received data functional within the current version of the data structure when the received data includes wildcard data that is not specified by the current version of the data structure;

a delimiter which acts as a sentry to validate a beginning of the construct; and

at least one wildcard member that follows the delimiter to receive wildcard data received in accordance with a different version of the data structure; and

wherein, the at least one optional data member, the at least one construct, and the at least one wildcard of the data structure are for receiving data formatted in accordance with the first version and for presenting the received data in an arrangement defined by the data structure for validation by the device using the current version.

6. (ORIGINAL) A computer-readable medium according to Claim 5, wherein the data structure is both backward-compatible and forward-compatible with other versions of the data structure.

7. (ORIGINAL) A computer-readable medium according to Claim 5, wherein the data structure is described by an XML schema.

8. (ORIGINAL) A computer-readable medium according to Claim 5, wherein the different version of the data structure is one of an earlier version of the data structure and a later version of the data structure.

9. (ORIGINAL) A computer-readable medium according to Claim 5, wherein a last occurrence of the at least one wildcard member is followed by an end delimiter.

10. (ORIGINAL) A computer-readable medium according to Claim 5, wherein the at least one wildcard member is to be placed in a location for a schema particle.

11. (ORIGINAL) A computer-readable medium according to Claim 10, wherein a schema particle is any one of a group consisting of an element, a compositor, a group, or an element wildcard.

12. (ORIGINAL) A computer-readable medium according to Claim 10, wherein the at least one wildcard member is to receive wildcard data that is any one of a group consisting of a target namespace, a local namespace, or a global namespace.

13. (Currently Amended) A computer-readable medium including at least one tangible component, and having stored thereon one or more instructions to be executed by one or more processors, the one or more instructions causing the one or more processors to:

receive data common to multiple generations of type, wherein the type refers to ~~data structure~~ a format of a message file which enables a message to be encoded or decoded in a valid manner;

tolerate an absence of optional data from the received data, when the data is received in accordance with a different generation of the type;

accept an inclusion of extra data in the received data, when the data is received in accordance with another different generation of the type;
and

validate a message by inserting the received data into ~~a current generation of the type~~ a data structure which allows the message to be validated by multiple different types.

14. (ORIGINAL) A computer-readable medium according to Claim 13, wherein the type is described by an XML schema.

15. (ORIGINAL) A computer-readable medium according to Claim 13, wherein to tolerate an absence of data in accordance with the different generation of the type is to detect no data element in an optional element member for a message.

16. (ORIGINAL) A computer-readable medium according to Claim 13, wherein to accept an inclusion of extra data in the received data is to receive the extra data in a placeholder for a message.

17. (ORIGINAL) A computer-readable medium according to Claim 13, wherein a current generation of the type includes at least one optional element member and at least one placeholder.

18. (ORIGINAL) A computer-readable medium according to Claim 16, wherein the at least one placeholder includes a delimiter followed by an element member to receive the extra data.

19. (ORIGINAL) A computer-readable medium according to Claim 16, wherein the at least one placeholder is to receive the further data that is any one of a group consisting of a target namespace, a local namespace, or a global namespace.

20. (Currently Amended) A method, comprising:

receiving data in accordance with different type versions, where each of the different type versions uses an different arrangement of data within a message file to enable encoding and decoding of the received data;

tolerating optional data missing from the received data, when the data is received according to a different type version;

receiving further data included in the received data, when the data is received according to another different type version; and

formatting the received data according to a current type version into a message; and

validating messages by inserting the received data into a data structure which allows the messages to be validated by the different type versions.

21. (ORIGINAL) A method according to Claim 20, wherein the further data includes the optional data.

22. (ORIGINAL) A method according to Claim 20, wherein the type is described using an XML schema.

23. (ORIGINAL) A method according to Claim 20, wherein to tolerate missing data from the received data is to allow an absent data element in an optional data member in order to validate a message.

24. (ORIGINAL) A method according to Claim 20, wherein to receive further data in the received data is to receive the further data in a placeholder in order to validate a message.

25. (ORIGINAL) A method according to Claim 20, wherein the current type version includes at least one optional data member and at least one placeholder.

26. (ORIGINAL) A method according to Claim 24, wherein the at least one placeholder includes a delimiter followed by a wildcard element to receive the further data according to the another different type version, and wherein further a last placeholder is followed by an end delimiter.

27. (ORIGINAL) A method according to Claim 24, wherein the at least one placeholder is to receive the further data that is any one of a group consisting of a target namespace, a local namespace, and a global namespace.

28. (Currently Amended) A parser, comprising:

means for receiving data according to multiple different generations of type, where each different generation of type uses an different arrangement of data within a message file to enable encoding and decoding of the received data;

means for excusing optional data being absent from the received data, when the data is received according to a different generation of the type; and

means for receiving further data in the received data, when the data is received according to another different generation of the type; and

means for validating messages by inserting the received data into a data structure which allows the messages to be validated by the multiple different generations of type.

29. (ORIGINAL) An apparatus according to Claim 28, wherein the type is described by an XML schema.

30. (ORIGINAL) An apparatus according to Claim 28, wherein the means for receiving further data includes at least one construct member having a delimiter followed by a wildcard data member.

31. (ORIGINAL) An apparatus according to Claim 28, wherein the means for receiving further data is placed in a location for a schema particle.

32. (ORIGINAL) An apparatus according to Claim 31, wherein the schema particle is any one of a group consisting of an element, a compositor, a group, or an element wildcard.

33. (ORIGINAL) An apparatus according to Claim 31, wherein the means for receiving further data is to receive data that is any one of a group consisting of a target namespace, a local namespace, or a global